

REMARKS**INTRODUCTION:**

In accordance with the foregoing, claims 1 and 4 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-5 are pending and under consideration. Reconsideration is respectfully requested.

REJECTION UNDER 35 U.S.C. §102:

A. In the Office Action, at page 2, numbered paragraph 3, claims 1-3 and 5 were rejected under 35 U.S.C. §102(b) as being anticipated by Ushio et al. (USPN 4,963,974; hereafter, Ushio). This rejection is traversed and reconsideration is requested.

Claim 1 has been amended to include the terminology: "wherein the electrolytic plating solution further contains mono-potassium citrate and tri-potassium citrate."

This amendment is supported by the specification of this application, pages 5-8, in the respective Examples 1-6, which recites that the electrolytic plating solution contains mono-potassium citrate and tri-potassium citrate. Hence, no new matter is introduced.

Utilizing mono-potassium citrate and tri-potassium citrate in the electroplating solution provides the following advantages:

- (1) reducing electric resistance;
- (2) increasing the amount of metallic ion that is supplied; and
- (3) reducing the variation of pH in the plating solution.

That is, in an electrolytic plating, the deposition speed is high, and therefore, it is advantageous to add mono-potassium citrate and tri-potassium citrate to the plating solution to increase the amount of the metallic ion supplied.

In contrast, in an electro-less plating, the deposition speed is not as high, and also the thickness of the plated layer is thin. Therefore, the metal deposition is generally possible only by the metallic salt existing in the vicinity of the substrate.

In an electrolytic plating solution, hydrogen is generated at the cathode and oxygen is generated at the anode. Thus, the value of the pH is variable, and therefore, it is advantageous to add mono-potassium citrate and tri-potassium citrate to the solution to reduce the variation of the value of the pH.

It is respectfully submitted that Ushio does not teach or suggest an electrolytic plating solution containing the gold complexing compound as well as mono-potassium citrate and tri-potassium citrate, as is set forth in amended claim 1. Hence, it is respectfully submitted that amended claim 1 is not anticipated under 35 U.S.C. §102(b) by Ushio et al. (USPN 4,963,974).

Since claims 2-3 and 5 depend, directly or indirectly, from amended claim 1, claims 2-3 and 5 are not anticipated under 35 U.S.C. §102(b) by Ushio et al. (USPN 4,963,974) for at least the reasons amended claim 1 is not anticipated under 35 U.S.C. §102(b) by Ushio et al. (USPN 4,963,974).

B. In the Office Action, at pages 2-3, numbered paragraph 4, claims 1-3 and 5 were rejected under 35 U.S.C. §102(b) as being anticipated by Nomiya et al. ("Synthesis and crystal structure of a hexanuclear silver (1) cluster ... and a supramolecular gold(I) complex in the solid state, and their antimicrobial activities," Journal of the Chemical Society, Dalton Transactions, 2000 (no month), pp. 2091-2097; hereafter, Nomiya) This rejection is traversed and reconsideration is requested.

As noted above, claim 1 has been amended to include the terminology: "wherein the electrolytic plating solution further contains mono-potassium citrate and tri-potassium citrate."

It is respectfully submitted that Nomiya does not teach or suggest an electrolytic plating solution containing the gold complexing compound as well as mono-potassium citrate and tri-potassium citrate, as is set forth in amended claim 1. Hence, it is respectfully submitted that amended claim 1 is not anticipated under 35 U.S.C. §102(b) by Nomiya et al. ("Synthesis and crystal structure of a hexanuclear silver (1) cluster ... and a supramolecular gold(I) complex in the solid state, and their antimicrobial activities," Journal of the Chemical Society, Dalton Transactions, 2000 (no month), pp. 2091-2097.

Since claims 2-3 and 5 depend, directly or indirectly, from amended claim 1, claims 2-3 and 5 are not anticipated under 35 U.S.C. §102(b) by Nomiya et al. ("Synthesis and crystal structure of a hexanuclear silver (1) cluster ... and a supramolecular gold(I) complex in the solid state, and their antimicrobial activities," Journal of the Chemical Society, Dalton Transactions, 2000 (no month), pp. 2091-2097 for at least the reasons that amended claim 1 is not anticipated under 35 U.S.C. §102(b) by Nomiya et al. ("Synthesis and crystal structure of a hexanuclear silver (1) cluster ... and a supramolecular gold(I) complex in the solid state, and their antimicrobial activities," Journal of the Chemical Society, Dalton Transactions, 2000 (no month), pp. 2091-2097.

REJECTION UNDER 35 U.S.C. §103:

In the Office Action, at pages 3-4, numbered paragraph 6, claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Ushio et al. (USPN 4, 963,974; hereafter, Ushio) in view of Schmid et al. ("Metal Clusters and Colloids," Advanced Materials, Vol. 10, No. 7, 1998 (no month), pp. 515-523; hereafter, Schmid). The reasons for the rejection are set forth in the Office Action and therefore not repeated. The rejection is traversed and reconsideration is requested.

Claim 1 has been amended as recited above.

Claim 4 has been amended to correct the spelling of "2-aminoethane thiol" to recite ---2-aminoethanethiol---.

As admitted by the Examiner, Ushio fails to teach using thiouracil or 2-aminoethanethiol as the complexing agent. Further, it is respectfully submitted that Ushio fails to teach or suggest a non-cyanogen type electrolytic solution for plating gold, containing gold salt as a supply source of gold and added with a non-cyanogen type compound, wherein the electrolytic plating solution is added with one selected from a group of thiouracil; 2-aminoethanethiol; N-methylthiourea, 3-amino-5-mercaptop-1,2,4-triazole; 4,6-dihydroxy-2-mercaptopurine; and mercapto-nicotinate; as a compound forming a complexing compound with gold; and wherein the electrolytic plating solution further contains mono-potassium citrate and tri-potassium citrate, as is recited in amended claim 1 of the present invention.

It is respectfully submitted that Schmid also fails to teach or suggest a non-cyanogen type electrolytic solution for plating gold, containing gold salt as a supply source of gold and added with a non-cyanogen type compound, wherein the electrolytic plating solution is added with one selected from a group of thiouracil; 2-aminoethanethiol; N-methylthiourea, 3-amino-5-mercaptop-1,2,4-triazole; 4,6-dihydroxy-2-mercaptopurine; and mercapto-nicotinate; as a compound forming a complexing compound with gold; and wherein the electrolytic plating solution further contains mono-potassium citrate and tri-potassium citrate, as is recited in amended claim 1 of the present invention.

Hence, even if combined, Ushio and Schmid do not teach or suggest amended claim 1 of the present invention. Thus, it is respectfully submitted that amended claim 1 of the present invention is patentable under 35 U.S.C. §103(a) over Ushio et al. (USPN 4, 963,974) in view of Schmid et al. ("Metal Clusters and Colloids," Advanced Materials, Vol. 10, No. 7, 1998 (no month), pp. 515-523), alone or in combination. Since claim 4 depends from amended claim 1 of the present invention, claim 4 is patentable under 35 U.S.C. §103(a) over Ushio et al. (USPN 4, 963,974) in view of Schmid et al. ("Metal Clusters and Colloids," Advanced Materials, Vol. 10,

No. 7, 1998 (no month), pp. 515-523), alone or in combination, for at least the reasons amended claim 1 is patentable under 35 U.S.C. §103(a) over Ushio et al. (USPN 4, 963,974) in view of Schmid et al. ("Metal Clusters and Colloids," Advanced Materials, Vol. 10, No. 7, 1998 (no month), pp. 515-523), alone or in combination.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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